

REMARKS

Pursuant to 37 C.F.R. § 1.111, reconsideration of the present application in view of the foregoing amendments and the following remarks is respectfully requested.

Claims 2 – 3, 8 – 10, 16 – 24, 26, 27, and 36 are presented for consideration. Claim 25 is hereby canceled. Claims 1, 4 – 7, 11 – 15, and 28 – 35 were previously canceled.

Claim 36 as amended sets forth a method of treating a substrate to improve the alcohol repellency of the substrate, the method comprising passing a substrate through a treatment solution comprising an ionic fluoropolymer and a sodium nitrate wherein the treatment solution contains less than about 0.05 weight percent of an antistatic agent, and wherein the treatment solution contains about 0.04 weight percent of the sodium nitrate, and wherein the treated substrate has a percent loss in hydrostatic head value as compared to untreated fabric of about 10% or less.

Support for amended claim 36 is found at least in original claim 1 and page 19, lines 11 – 13 of the specification (a method of treating a substrate to improve the alcohol repellency of the substrate, the method comprising passing a substrate through a treatment solution comprising an ionic fluoropolymer and a monovalent salt wherein the treatment solution contains less than about 0.05 weight percent of an antistatic agent), at page 24, lines 15 - 22 of the specification (wherein the treatment solution contains about 0.04 weight percent of sodium nitrate), and page 5, lines 8 – 11 (wherein the treated substrate has a percent loss in hydrostatic head value as compared to untreated fabric of about 10% or less).

No new matter has been added.

By way of the Office Action mailed March 24, 2009, claims 2, 3, 8, 16 – 27, and 36 were rejected under 35 U.S.C. § 103 as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over US Patent Number 4,411,928 to Baldwin in view of US Patent Number 4,028,887 to Coates. Additionally, claims 9 and 10 were rejected under 35 U.S.C. § 103 as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over the above noted references as applied above, and further in view of Potts (US 5,145,727). These rejections are respectfully **traversed** to the extent that they may apply to the presently presented claims.

Applicants have discovered that a water repellency property (hydrostatic head) of a substrate is negatively impacted by simultaneously treating the substrate with an ionic fluoropolymer treatment chemical (to promote alcohol repellency) and an antistat (to reduce buildup of static charge). This

is demonstrated by Comparative Example B, which, when treated with ionic fluoropolymer and anionic antistatic agent, demonstrated a 45% drop in the hydrostatic head value compared with an untreated sample (Comparative Example A). Applicants have additionally discovered that removal of the antistat from the treatment solution results in reduced adherence of the ionic fluoropolymer to the substrate, thus causing reduced alcohol repellency. This problem is particularly significant when passing the substrate through a treatment solution, as it is important that the fluoropolymer adhere to the substrate before it is removed from the treatment solution. Applicants have surprisingly discovered that using about 0.04 weight percent of sodium nitrate in the treatment solution will 1) allow the ionic fluoropolymer to adhere to the substrate, 2) provide significant alcohol repellency (80 percent), and 3) provide a percent loss in hydrostatic head value of about 10% or less. This is demonstrated by Example 7, which, when treated with ionic fluoropolymer and 0.04% sodium nitrate, demonstrated only a 7% drop in the hydrostatic head value compared with the untreated sample. Heretofore, this surprising relationship between the magnitude of the percentage of sodium nitrate and hydrostatic head was unknown.

Baldwin teaches an alcohol repellent finish by treatment with a solution including fluoropolymer and a monovalent salt. Suitable monovalent salts include sodium chloride and sodium dihydrogen phosphate. Baldwin does not mention sodium nitrate. According to the teaching of Baldwin, the monovalent salt is added to **enhance** the antistatic properties (col 5, lines 14 – 16), and is applied in an amount of 0.2 – 0.5 weight percent. Thus Baldwin's minimum amount of monovalent salt is 5 – 10 times more than the amount in Applicants' claim 36. Also, one of ordinary skill would not be motivated to adjust Baldwin's amount of monovalent salt downward, unless improperly motivated by Applicants' specification, because to do so would not enhance the antistatic properties, which is precisely the reason that Baldwin has the monovalent salt in the treatment solution. There is no recognition in Baldwin or the other cited references of the problem of negatively impacting water repellency when simultaneously treating with ionic fluoropolymers and antistats. Baldwin's process is directed to promoting antistatic properties, while Applicants' process is directed to solving the problem by avoiding antistats. With these diametrically opposed purposes, it is difficult to see how one skilled in the art would be motivated to modify Baldwin by 1) selecting sodium nitrate and 2) reducing its percentage for what is taught by .5 to 1 orders of magnitude, and 3) further avoiding antistats to arrive at Applicants' solution as set forth in claim 36.

Coates was cited for teaching that an anionic fluoropolymer may be utilized to impart alcohol repellency and does not address or correct the deficiencies of Baldwin noted above. Additionally, Potts does not address or correct the deficiencies of Baldwin noted above.

For the reasons stated above, it is respectfully submitted that all of the presently presented claims are in form for allowance.

Please charge any prosecutorial fees which are due to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875.

The undersigned may be reached at telephone number 770-587-8626 or fax number 770-587-7327.

Respectfully submitted,

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I, Faye Farrell, hereby certify that this correspondence and all attachments and any fee(s) are being electronically transmitted via the internet to the United States Patent and Trademark Office using the Electronic Filing System EFS-Web on June 24, 2009.

/Faye Farrell/